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Subject: Re: Measuring and Adjusting CPU utilization  
Posted by [Pradeep Padala](#) on Tue, 06 Jun 2006 23:27:32 GMT  
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Thanks for the explanation, but I DID use the --cpulimit parameter.

I set the limit to 1000 units, I run a while(1) loop, and I see a 100% loadavg on the host node. Shouldn't it be somewhere around 10% ?

Pradeep

On 6/6/06, Kir Kolyshkin <[kir@openvz.org](mailto:kir@openvz.org)> wrote:

>  
> Looks like you misunderstand the concept of cpuunits. cpuunits is not a  
> hard limit, but just a suggestion, and a CPU time is shared  
> proportionally to the values given. So, if you will have 9 VEs and the  
> host system with cpuunits set to 1000 for all of them, and run the loop  
> in all of them, each VE will use 10% of the CPU time.  
>  
> In case you will stop the loop running in 5 VEs so there will be 4 such  
> VEs (plus the host system) left, each of them will use 20% of the CPU.  
> So, all the CPU time is distributed between VEs which will need it,  
> according with their proportional cpuunits.  
>  
> More to say, the concept of "total CPU units" is purely fiction, and is  
> here just for the convenience. People do want to set CPU units in terms  
> of processor's megahertz, and this is what cpuunits does. But in fact it  
> is not a megahertz but just a relative weights. I.e. all the cpuunits  
> values are relative to each other, it doesn't matter what the actual  
> numbers are -- what matters is a number given to a VE in relation to the  
> sum of all cpuweights (which is expressed as "total CPU units" just for  
> the convenience).  
>  
> So, cpuunits, if you do not oversell them, are a CPU guarantee, not a  
> limit. If you want CPU limit -- use cpulimit parameter.  
>  
> Pradeep Padala wrote:  
>  
>> Hi,  
>>  
>> I am trying to measure the CPU utilization of the VZ containers, and  
>> change the cpu share dynamically. I have poured over most of the  
>> documentation, and looked at the code as well, and it seems like  
>> there's no utility that can directly show the current CPU utilization  
>> of a container (some thing like 30% of CPU). A search on the user list  
>> got me a message, where someone suggested using loadavg. However, It  
>> seems like the loadavg is not showing the proper utilization (or  
>> showing the total CPU utilization). This is what I am doing.

> >  
> > I setup a container with 1000 units limit (total CPU units: ~10000). I  
> > wrote a small do {; }while(1); loop and ran it in the container, now I  
> > do cat /proc/loadavg in both the container and on the host node.  
> > Since, the container is only using 1000 units, I should see something  
> > like 100% loadavg in the container, and 10% loadavg in the hostnode.  
> > But, I see 100% at both places. Am I doing something wrong? How do I  
> > get the current cpu utilization of a container?  
> >  
> > Thanks,  
> > --  
> > Pradeep Padala  
> > <http://ppadala.blogspot.com>  
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